

PARKHOMENKO, N.M.; VASIL'YEV, N.V.

Bactericidal effect of aerosols of DDT, benzene hexachloride, lysol, and anabasine sulfate; author's abstract. Zhur.mikrobiol.epid. i immun. 30 no.6:119 Je '59. (MIRA 12:10)

1. Iz Protivochumnogo instituta Kavkaza i Zakavkaz'ya.  
(BACTERICIDES)

VASIL'YEV, Nikolay Vasil'yevich, prof., doktor ekonom.nauk; KOMAROV, Ye.I.,  
red.; PONOMARENKA, A.A.,tekhn.red.

[Distribution and specialization of agriculture in the U.S.S.R.]  
Razmeshchenie i spetsializatsiya sel'skogo khoziaistva SSSR.  
Moskva, Gosplanizdat, 1959. 143 p.  
(Agriculture) (MIRA 12:12)

VASIL'YEV. Nikolay Vasil'yevich, dotsent, kand.tekhn.nauk; POLYAKOV, N.S., prof.; retsenzent; SHTOKMAN, I.G., prof., doktor tekhn.nauk, retsenzent; BAKHURIN, K.I., kand.tekhn.nauk, retsenzent; KUZNETSOV, B.A., dotsent, kand.tekhn.nauk, retsenzent; BILICHENKO, N.Ya., dotsent, kand.tekhn.nauk, retsenzent; RENGEVICH, A.A., dotsent, kand.tekhn.nauk, retsenzent; KOZLOVSKIY, S.I., dotsent, kand.tekhn.nauk, retsenzent; YEVNEVICH, A.V., dotsent, kand.tekhn.nauk, otv.red.; GARBER, T.N., red.izd-va; SHKLYAR, S.Ya., tekhn.red.

[Transportation and storage in ore dressing and briquetting plants]  
Transport i sklady na obogatitel'nykh i briketnykh fabrikakh.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959.  
341 p.

(MIRA 13:2)

1. Zaveduyushchiy kafedroy rudnichnogo transporta Dnepropetrovskogo gornogo instituta, chlen-korrespondent AN USSR (for Polyakov).
2. Kafedra rudnichnogo transporta Dnepropetrovskogo gornogo instituta (for Shtokman, Bakhurin, Kuznetsov, Bilichenko, Rengevich). 3. Kafedra rudnichnogo transporta Moskovskogo gornogo instituta (for Yevnevich).

(Ore dressing) (Ore handling) (Conveying machinery)

17(2,12)

SOV/16-59-6-26/46

AUTHORS: Parkhomenko, N.M. and Vasil'yev, N.V.

TITLE: The Bactericidal Properties of DDT, BCH, Lysol and Anabasinsulfate Aerosols. Author's Summary.

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 6,  
p 119 (USSR)

ABSTRACT: The authors tested the bactericidal effects of DDT, BCH, lysol and anabasinsulfate aerosols on Pasteurella pestis in an apparatus designed by the Tsentral'nyy dezinfektsionnyy institut (Central Disinfection Institute). The tests showed that the anabasinsulfate and its aerosols did not kill the bacteria. Lysol aerosol in a concentration of 200-50 mg/l killed off all the bacteria with an exposure of 8 minutes from the time of vaporization of the aerosol, and killed off part of the bacteria in a concentration of 10 mg/l with the same exposure. Pure DDT aerosol killed the microbes in 15, 50 and 60 minutes with a concentration of 300-50 mg/l. Pure DDT and commercial BCH aerosols in concentrations of 40 to 20 mg/l killed the bacteria in 2 hours. At concentrations less than 10 mg/l death did not ensue. Lysol aerosols killed the microbes in concentrations of 40 to 5 mg/l in 2 hours; in concentrations of

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SOV/16-59-6-26/46

The Bactericidal Properties of DDT, BCH, Lysol and Anabasinsulfate Aerosols. Author's Summary

1 mg/l they did not. Thus, the minimum lethal dose of DDT and BCH aerosols for Pasteurella pestis was 10-20 mg/l for an exposure of 2 hours. For lysol aerosols the dose was 1 to 5 mg/l.

ASSOCIATION: Protivochumnyy institut Kavkaza i Zakavkaz'ya (Caucasian and Trans-caucasian Anti-plague Institute)

SUBMITTED: June 23, 1958

Card 2/2

VASIL'YEV, N.V.

14(10)

PHASE I BOOK EXPLOITATION

sov/2754

Akademiya stroitel'stva i arkhitektury SSSR. Institut osnovaniy i podzemnykh sooruzheniy

Vremennyye tekhnicheskiye ukazaniya po stroitel'stu tonneley sposobom prodayivaniya (Temporary Technical Specifications for Tunnel Construction by the Shielding Method) Moscow, Gosstroyizdat, 1958. 178 p. 2,000 copies printed.

Ed.: N. V. Vasil'yev, Candidate of Technical Sciences; Ed. of Publishing House: A. P. Munits; Tech. Eds: Ye. L. Temkina and N. I. Rudakova.

PURPOSE: This book is intended for technical personnel in design and construction organizations.

COVERAGE: This book contains information on the shielding method of tunnel construction. Techniques and operational details are discussed. Construction of the working and intermediate sections, the design of the cutting section and other parts are described, along with the equipment and attachments used in the process. The appendixes contain temporary specifications for 1) the

Card 1/3

## Temporary Technical Specifications (Cont.)

SOV/2754

organization of sites for the production of prefabricated sections, 2) the waterproofing of sections, 3) methods in packing the junctions of sections, and 4) the assembly and disassembly of cement molds for pouring reinforced-concrete sections. No personalities are mentioned. There are no references.

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Card 2/3

Temporary Technical Specifications (Cont.)

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AVAILABLE: Library of Congress (TA 815 .A4)

Card 3/3

GO/os  
1/25/60

KONSTANTINOV, B.P.; DEBORIN, A.M., akademik; PEYVE, Ya.V.; IOFFE, A.F.,  
akademik; MIKHAYLOV, A.I., prof.; SATPAYEV, K.I., akademik;  
ZHUKOV, Ye.M., akademik; LAVRENT'YEV, M.A., akademik; SEMENOV, N.N.,  
akademik; PAVLOVSKIY, Ye.N., akademik; MINTS, I.I., akademik;  
SISAKYAN, N.M.; ROMASHKIN, P.S.; FEDOROV, Ye.K.; STEPCHIKIN, B.S.,  
akademik; MAYSKIY, I.M., akademik; PAVLOV, Todor, akademik;  
AREUZOV, A.Ye., akademik; VASIL'YEV, N.V., doktor ekon.nauk;  
BELOUSOV, V.V.; MITIN, M.B., akademik; BLAJONRAVOV, A.A., akademik;  
KANTOROVICH, L.V.; RYBAKOV, B.A., akademik; NEMCHINOV, V.S., akademik  
Discussion of the address. Vest. AN SSSR 29 no.4:34-63 Ap '59.

(MIRA 12:5)

1. Chlen-korrespondent AN SSSR (for Konstantinov, Payve, Sissakyan,  
Romashkin, Fedorov, Belousov, Kantorovich).  
(Science)

VASIL'YEV, N.V., kand.tekhn.nauk, red.; MUNITS, A.P., red.izd-va;  
TEMKINA, Ye.L., tekhn.red.; RUDAKOVA, N.I., tekhn.red.

[Temporary technical specifications for constructing tunnels  
by the pushing method] Vremennye tekhnicheskie ukazaniia po  
stroitel'stvu tonnelei sposobom prodavlivaniia. Moskva, Gos.  
izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958.  
178 p. (MIRA 12:5)

1. Akademiya stroitel'stva i arkhitektury SSSR.  
(Tunneling)

MALYSHEV, P.K.; VASIL'YEV, N.V.

Cold welding of critical cast iron parts. TSegment 24 no. 6:31-32 H-D  
' 58. (MIRA 12:1)

(Cement plants--Equipment and supplies)  
(Machinery--Welding)

VASIL'YEV, N.V., kand. tekhn. nauk.; ALEKSANDROV, D.S., inzh.

Using removable brass lining in butt welding of pipes. Nov. tekhn. i  
pered. op. v stroi. 20 no.11:10-12 N '58. (MIRA 11:11)  
(Pipe, Steel—Welding)

VASILYEV, N.V.

U-1

USSR/General Problems of Pathology. Immunity

Abs Jour : Ref Zhur - Biol., No 5, 1958, 22824

Author : Vasilyev, N.V.

Inst :  
Title : On the Effects of the Development of Defensive Conditioned Reflexes on Compliment's Titer in Rabbits.

Orig Pub : 5-y Pavlovsk. sb. Tomskogo med. in-ta, Tomsk, 1956,  
43-44

Abstract : Establishment of defensive conditioned reflexes in rabbits failed to lead to permanent changes in the titer of compliment.

Card 1/1

VASILYEV, N.V.

USSR/General Problems of Pathology. Immunity

U-1

Abs Jour : Ref Zhur - Biol., No 5, 1958, 22025

Author : Vasilyev, N.V.

Inst :

Title : On the Effect of Experimental Neurotic States Upon  
the Blood Compliment Content in Rabbits.

Orig Pub : 5-y Pavlovsk. sb. Tomskiy med. in-ta, Tomsk, 1956,  
45-47

Abstract : The development of experimental neurosis in rabbits  
was unaccompanied by changes in the titer of compli-  
ment.

Card 1/1

VASILEV, N.V.

USSR/General Problems of Pathology - Immunity.

T-1

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2945

Author : N.V. Vasilev

Inst : -

Title : On the Problem of Bactericidal Properties of Normal Serum of Animals.

Orig Pub : Tr. Tomskogo n.-i. in-ta vaktsin i syvorotok, 1956, 8, 244-250.

Abstract : The serum of rabbits has no bactericidal action (BA) on microbes of the intestinal group, but demonstrates a clear BA in relation to cocci and sporebearing bacteria (B. subtilis, St. albus, B. pseudoanthracis, Micrococcus lysodeicticus and Sarcina lutea). The heating of the serum for 30 minutes at temperatures of 56° and 70° produced a significant BA inactivation for B. subtilis; complete BA loss in relation to St. albus was observed in the heating of the serum at 56°. As a rule, the heating for 30 minutes at a

Card 1/2

VASIL'YEV, N.V.

Economic Research

In the Institute of Economics. Vest. AN SSSR, 22, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, UNCLASSIFIED.

VASILYEV, M. V., CHELNOV, S. S., FNG.

Pipelines

Construction of pipe lines and sewers by pressure tunneling. Gcr. khoz. Mosk. 16  
no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

TIKHOLOMOV, S.S., inzhener; CHELNOKOV, S.S., inzhener; VASIL'YEV, N.V., kandidat tekhnicheskikh nauk.

Shielded methods of building underground municipal structures. Gor. khoz.  
Mosk. 27 no.5:17-26 My '53. (MLRA 6:6)

(Moscow--Municipal engineering)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

VASIL'YEV, N. V.

"The Mechanism of the Action of Sativin," Fitontsidy, Ikh Rol' V Prirode i Znacheniye Dlya Meditsiny (Phytoncides, Their Role in Nature, and Their Significance for Medicine) [a collection], Moscow, 1952, pp 322-329.

H/5  
894.4  
.V3  
1955

VASIL'YEV, NIKCLAY VASIL'YEVICH

Amerika s cherno<sup>go</sup> khoda (American from the back entrance) Ocherki  
I zarisovki Izd. 4, perer i dop. Moskva, Molodaya Gvardiya, 1955.

396 p. illus.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

V. LIL'EV, N.I. L.I. V. SIB'ZICH,

Prblems of the economics and planning of subtort n-agriculture M.sx. , Gos.  
i.d.-vo sel.hoz. lit-ry 1949. 142 p. (SC-13592

ML1993 1949. V3

1. Agriculture - Economic aspects - Russia

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

VASIL'YEV, NIKOLAI VASIL'EVICH

Agriculture

Socialist agriculture on the road to plenty; Moskva, Gos. izd-vo polit. lit-ry, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952. Unclassified.

VASIL'YEV, Nikolay Vasil'yevich

VASIL'YEV, Nikolay Vasil'yevich.

Die Landwirtschaft der Sowjetunion auf dem Wege zum Überfluss. Berlin,  
Deutscher Bauernverlag, 1953

159 p.

Translation from the Russian, "Sotsialisticheskoye sel'skoye khozyystvo  
na putyakh k izobiliyu produktov," 1951.

Bibliographical footnotes.

N/5  
722.1  
.V31

VASILYEV, N. V.

5630. VASILYEV, N. V. Razvitiye prigorodnogo sel'skogo khozyaystva.  
M., Izd-vo Akad. nauk SSSR, 1954. 144s 20sm (akad. nauk SSSR. nauch  
popul. seriya «V pomoshch' sel'skomu khozyaystvu». 100.000 ekz  
2 r 40k -/55-1446/p 338.1(47)

So. Knizhnaya, Letopis, Vol 1, 1955

VASIL'YEV, Nikolay Vasil'yevich, Ed.

N/5

722

.V3

Za krutoy pod'yem sotsialisticheskogo sel'skogo khozyaystva  
(For the sharp rise of Socialist Agriculture) Moskva, Goskul'-  
tprosvetizdat, 1954.

201 p.

$\text{Pb-6/Pt-10/Pu-6}$

ACCESSION NO. 10-472-1

AUTHOR: Benderskiy, L. S. (Engineer); Bystrkov, A. M.; Vasil'yev, N. V.

*Environ Biol Fish* 2000; 57: 353–360. © 2000 Kluwer Academic Publishers. Printed in the Netherlands.

TYPE: Obtaining high-grade castings from molten iron alloys by filtering the

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SOURCE: Liteynoye proizvodstvo, no. 11, 1964, 37-39

**TOPIC TAGS:** magnesium alloy, magnesium base alloy, foundry technology, alloy casting, metal filtration

**ABSTRACT:** A method of obtaining high-grade castings from magnesium alloys by filtering the molten metal through a porous ceramic filter.

that there are no flux and slag inclusions in the weld. It is also recommended that defects from flux and slag inclusions are reduced by a factor of 12-15, and final flow is reduced by a factor of 7-8. The optimum ratio between the total area of grid openings and the total area of the cross section of the risers should be no less than 5:1. The recommended height of the filter is 60-80mm. Orig. art. has: 7 Card 1/2 figures and 1 table.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

L 33950-65

ACCESSION NR: AP4049500

ASSOCIATION: none

Card 2/2

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

VASIL'YEV Nikolay Vasil'yevich, doktor ekon. nauk; BRODSKAYA,  
M.L., red.

[What the state and collective farms gain from specialization]  
Chto daet spetsializatsiya sovkhozam i kolkhozam.  
Moskva, Kolos, 1965. 133 p. (MIRA 19:1)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

VASIL'YEV, N.V., inzh.; DIVINSKIY, Yu.L., inzh.; KNAKHOVSKIY, A.A., inzh.;  
FADEYEV, N.P., inzh.

Equipment for the preparation of flux. Lit. proizv. no.11;  
19-20 N '65.  
(MIRA 18:12)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

PLEKHANOV, G.F.; VASIL'YEV, N.V.; DEMIN, N.V.; ZHURAVLEV, V.K.; ZENKIN, G.M.; KOVALEVSKIY, A.F.; LIVOV, Yu.A.; FAST, V.G.; TUL'SKIY, A.S. [deceased]

Some results of the study of the problem of the Tunguska meteroite.  
(MIRA 16:4)  
Geol.i geofiz. no.1:111-123 '63.

1. Tomskiy meditsinskiy institut, Nauchno-issledovatel'skiy institut  
Tomskogo politekhnicheskogo instituta i Institut geologii i geofiziki  
Sibirskogo otdeleniya AN SSSR.  
(Podkamennaya Tunguska Valley--Meteorites)

VASIL'YEV, N.V., kand. tekhn. nauk

Hydraulic machine for underground tunneling (from "Contractors  
and Engineers," Mr 1962.) Mont. i spets. rab. v stroi. 25  
no. 5:29-30 My '63. (MIRA 16:7)

(United States--Tunneling--Equipment and supplies)

BADIR'YAN, G.G., prof.; VASIL'YEV, N.V., prof.; KOTOV, G.G., prof.; RUDAKOVA, Ye.A., prof.; BRAGINSKIY, B.I., doktor ekon.nauk; GUMEROV, M.N., dots.; ROMANCHENKO, A.V., doktor ekon. nauk; ABRAMOV, V.A., dots.; ALTAYSKIY, I.P., kand. ekon. nauk; GAVRILOV, V.I., dots.; RAFIKOV, M.M., kand.ekon. nauk; VINOKUR, R.D., dots.; RUSAKOV, G.K., dots.; LAVRENT'YEV, V.N., dots.; GORELIK, L.Ya., red.; PONOMAREVA, A.A., tekhn. red.

[Economics, organization and planning of agricultural production] Ekonomika, organizatsiya i planirovaniye sel'skokhozaiistvennogo proizvodstva. Moskva, Ekonomizdat, 1963. 607 p.  
(MIRA 16:11)

(Agriculture--Economic aspects)

20  
SOV/101-58-6-9/13

AUTHORS: Malyshev, P.K., and Vasil'yev, N.V.

TITLE: The Welding of Primary Cast Iron Parts by the Cold Method (Svarka otvetstvennykh chugunnykh detaley kholodnym sposobom)

PERIODICAL: Tsement, 1958, Nr 6, pp 31-32 (USSR)

ABSTRACT: At cement plants, many piston engines are used. These engines often break down because of crack formation in the piston heads. It is here recommended to weld these cracks using a method developed by the engineer, M.V. Lyubimov. The welding may be done with a-c of 50 to 100 amp. depending on the thickness of the welded part. The electrode is made of red copper wire 3-6 mm in diameter. Tin plating 6-9 mm broad is wound around it (Figure 2). The electrode is coated with a flux. The welded part must be 1.5 - 3 mm distant from the electrode. For welding cast

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SGV/101-58-6-9/13

The Welding of Primary Cast Iron by the Cold Method

iron parts, a steel electrode of 3-5 mm in diameter is used. For welding the piston of the diesel engine MAN, groovers are made (Figure 4), to which 4 welding seams are applied with different electrodes. There are 4 diagrams.

Card 2/2

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

VASIL'YEV, N.V., kand. tekhn. nauk.; ALEKSANDROV, D.S., inzh.

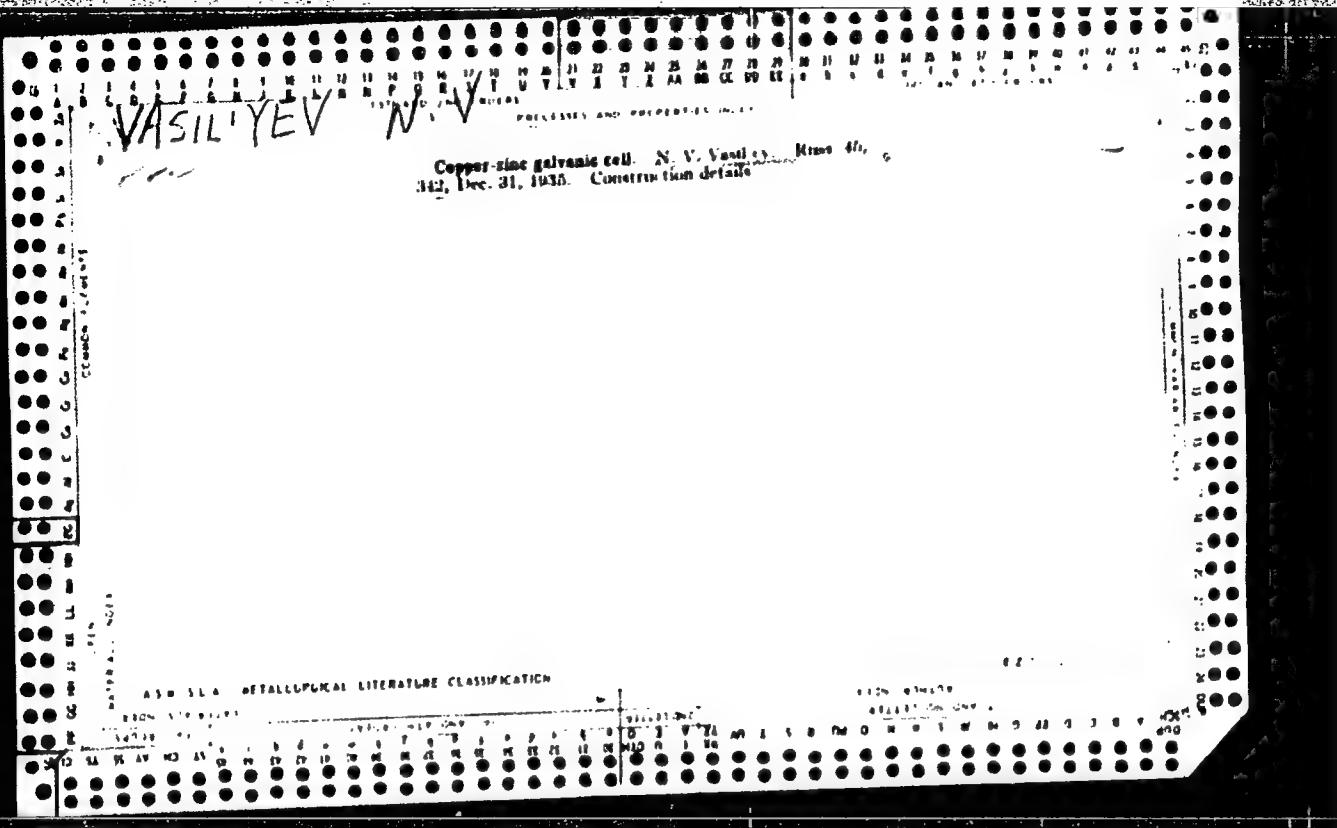
Laying sewers by the method of pressing. Nov. tekhn. i perek. op. v  
stroi. 20 no. 11:12-14 N '58. (MIRA 11:11)  
(Sewers, Concrete)

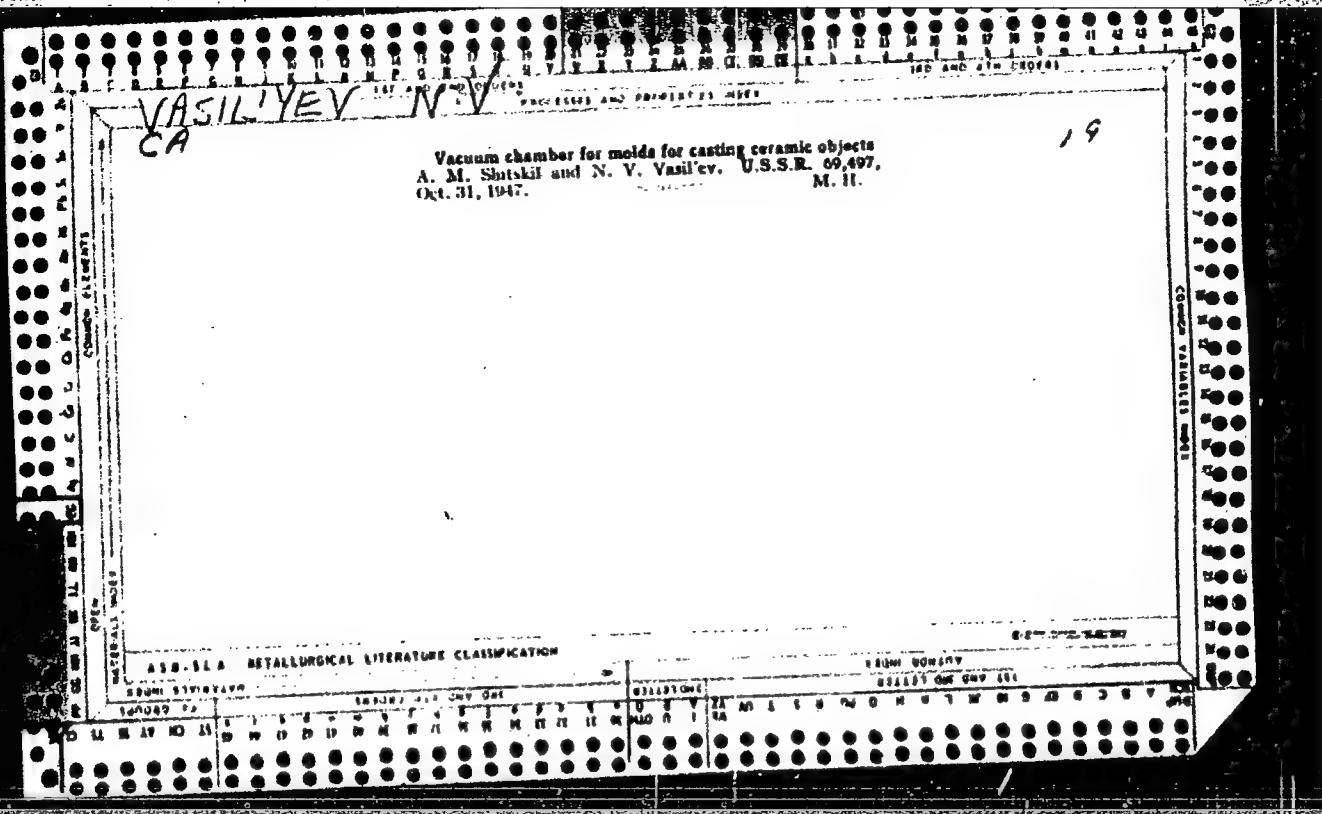
APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

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CIA-RDP86-00513R001858910012-6





VASIL'YEV, Nikolay Vasil'yevich, prof.; GALKINA, A.G., red.; ATROSHCHENKO,  
L.Ye., tekhn.red.

[Further specialization and the distribution of agricultural production] Dal'neishaiia spetsializatsiia i razmeshchenie sel'skokhoziaistvennogo proizvodstva. Moskva, Izd-vo "Znanie," 1960. 45 p. (Vsesoiuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znanii. Ser.5, Sel'skoe khozisistvo, no.18). (MIRA 13:10)

(Agricultural geography)



"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

ZAYCHENKO, I.Z.; VASIL'YEV, N.V.

Investigating and calculating new choke designs. Stan.i  
instr. 31 no.7:10-13 J1 '60. (MIRA 13:7)  
(Machine tools--Hydraulic driving)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

VASIL'YEV, N.Ya., inzh.

New type of lifesaving apparatus. Sudostroenie 28 no.5:29-31 My '62.  
(MIRA 15:7)

(Lifesaving apparatus)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

VASIL'YEV, N.Ya.; BUSHMAKIN, Yu.A.; KULALAYEV, Yu.S.

Smelting the 70M alloy in electric-arc furnaces and rolling  
3,3 ton ingots. Biul.tekh.-ekon.inform.Soc.nauch.-issl.inst.  
nauch.i tekhn.inform. no.8:12-13 Ag '65.  
(MIRA 18:12)

VASIL'YEV, N.Ye.; VVERKHOVTSEV, E.V.; PROKHORENKO, K.K.; SVISTUNOV, A.M.  
[deceased]; KACHANOV, N.N.

Improving the quality of ball bearing steel. Izv. vys. ucheb. zav.;  
chern. met. 6 no.11:88-92 '63. (MIRA 17:3)

1. Izhevskiy mekhanicheskiy institut.

PROKHORENKO, K.K.; VASIL'YEV, N.Ye.; ISHCHUK, N.Ya.; VERKHOVTSEV, E.V.

Reducing nonmetallic inclusions in roller-bearing steel. Vop.  
proizv. stali no.7:94-116 '60. (MIRA 13:8)  
(Steel--Defects)  
(Bearing metals--Defects)  
(Nonmetallic materials)

VASIL' YEV., N. YE.

S/137/61/000/011/027/123  
A060/A101

AUTHORS: Prokhorenko, K.K., Ishchuk, N.Ya., Vvedenskiy, V.S., Vasil'yev, N.  
Ye., Verkhovtsev, E.V.

TITLE: Reduction of the contamination of electric steel by fine cracks and  
non-metallic impurities

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 53, abstract  
11V305 (V sb. "Vopr. proiz-va stali", no. 8, Kiev, AN USSR, 1961,  
55 - 69)

TEXT: Steel 30XH 2MFA (30KhN2MFA) is smelted in 20-ton arc furnaces and  
is cast in 2-ton ingots. In connection with the fact that this steel is sensi-  
tive to fine cracks, a study was made of the influence of the reducing method  
upon formation of fine cracks, its nonmetallic impurity content and its mechani-  
cal characteristics. The following variants of the reduction method were tried  
out: diffusion reduction by 75% Fe-Si with the admixture of 0.5 kg Al per ton  
at the end of the heat; the same but with Al added before the admixture of Fe-  
Cr; "precipitation" reduction by 45% Fe-Si and 0.5 kg Al per ton at the end of  
the heat; the same with 1.5 kg Si-Cd per ton in the ladle; reduction of 45% Fe-

Card 1/2

S/137/61/000/011/027/123  
A060/A101

Reduction of the contamination ...

Si and Al 1.0 kg/ton at the end of the heat; the same but with 1.5 kg Al per ton. The percentage by weight of nonmetallic impurities in the steel was the lowest at the increased Al admixture (1.0-1.5 kg/ton). It was established that the main reason for the formation of fine cracks in the steel 30KhN2MFA are large oxide impurities deformed in the direction of rolling, the oxide impurity content and the steel affection by cracks are reduced as one raises the quantity of Al-introduced into the steel; the steel has the greatest contamination when the Al is added before introducing the Fe-Cr; the reduction method - diffusion of "precipitation" has no influence upon the quality of the steel; when Si-Cd is used for reducing the steel, the number of cracks is reduced but their size becomes greater; the mechanical characteristics are basically the same for all the variants of the reduction method. There are 15 references.

V. Boyarshinov

[Abstracter's note: Complete translation]

Card 2/2

PROKHORENKO, K.K.; ISHCHUK, N.Ya.; VVEDENSKIY, V.S.; VASIL'YEV, N.Ye.;  
VERKHOVTSEV, E.V.

Reducing the contamination of electrical steel by hair cracks  
and nonmetallic inclusions. Vop.proizv.stali no.8:55-69 '61.  
(MIRA 14:6)

(Steel--Defects)

S/137/61/000/012/021/149  
A006/A101

AUTHORS: Prokhorenko, K. K., Ishchuk, N. Ya., Vasil'yev, N. Ye.

TITLE: Distribution of non-metallic impurities in ball bearing steel ingots

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 59, abstract  
12V359 (v sb. "Vopr. proizv.-va stali", no. 8, Kiyev, AN UkrSSR,  
1961, 70 - 77)

TEXT: To study the distribution of non-metallic impurities, 3 ingots weighing 700, 2,000 and 3,000 kg were siphon-cast from metal of one heat. The steel was melted in a 20-ton electric furnace. Diffusion deoxidation of the metal was performed with low-carbide slag which was converted into white slag at the end of the reduction period. The metal was finally deoxidized with Al (450 g/t). During the teeming of the heat into the ladle the metal was mixed with the slag. The composition of the steel in % was: C 1.0, Mn 0.34, Si 0.28, S 0.01, P 0.014, Cr 1.3. Plates were produced by longitudinal axial cutting of the cast ingots. After polishing the plates, imprints were taken for S determination and their surfaces were subjected to deep etching. Specimens of the plates were subjected to metallographic investigations of non-metallic impurities, electrolytic dissolving

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S/137/61/000/012/021/149  
A006/A101

Distribution of non-metallic impurities...

and determinations of chemical heterogeneity. Specimens and samples were taken off the crust zone; the zone of columnar and equiaxial crystals, and along the ingot axis. Along the ingot height samples were taken every 200 mm. It was established that non-uniform contamination of the steel by non-metallic impurities was due to the heterogeneous macrostructure of the ingots. The middle and lower portion of the ingots where the macrostructure is worst, were most contaminated with non-metallic impurities. A direct dependence was established between the extent of non-metallic impurities and the ingot weight, but no such dependence was revealed for the content and the area of impurities.

P. Arsent'yev

[Abstracter's note: Complete translation]

Card 2/2

L 20086-65 EWT(m)/EWF(t)/EXP(b) JD/MLK  
ACCESSION NR AML049518 BODY EXHIBITATION

S/ BT/

Prokhorenko, Kim Kondrat'evich; Verkhovtsev, Smill' Vladimirovich; Rakumenko,  
Sergey Pantaleevich; Vasil'yev, Nikolay Efimovich; Ishchuk, Nikolay  
Yakovlevich; Pimenov, Petr Ivanovich; Tsvetkov, Gennadii  
Petr Pimenovich; Ismail, Iasiliy Ivanovich

Melting and pouring of quality steels (Vysplavka i razlivka kachestvennykh  
stalej), Moscow, Izd-vo "Metallurgiya", 1964, 200 p. illus., bibliog. Errata  
slip inserted. 2,450 copies printed.

TOPIC TAGS: quality steel, steel teeming, steel melting, metallurgical furnace

PURPOSE AND COVERAGE: This book reports on the results of work on improving the  
technology of melting, deoxidation, and teeming of quality steels in electric arc,  
acid and basic open-hearth furnaces conducted at the Izhevsk Metallurgical Plant  
and the Serovsk Metallurgical Combine. Great attention is given to description of  
the measures to reduce contamination with nonmetallic inclusions of ball bearing  
and structural steels, presentation of material on the effectiveness of teeming  
steel under a liquid slag, and to increasing the output of sound metal from the  
ingots due to the use of various methods of heating their hot top. The results  
of using rare earth elements for deoxidation and modification of steel are given.

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L 20086-65

ACCESSION NR AM4049548

The book is intended for engineers and technicians working in the production of quality steels and can also be useful to students of higher educational institutions.

TABLE OF CONTENTS (abridged):

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Ch. I. Technology of melting steel in electric arc furnaces -- 7

Ch. II. Technology of melting steel in basic open-hearth furnaces -- 61

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Ch. IV. Steel teeming -- 102

Ch. V. Teaming steel under a protective layer -- 129

Ch. VI. New methods of inspecting the macrostructure of metal -- 173

Ch. VII. Experience in the use of rare earth elements to improve the quality of

steels -- 182

SUB CODE: MM

OTHER: 003

SUBMITTED: 25Apr64

NR REF COV: Old

Card 2/2

L 15200-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) ASD(f)-2/ASD(m)-3/AFMDC/ESD(gs) MJW/  
JD/JG/MLK S/0000/64/000/000/0209/0213  
ACCESSION NR: AT4048715

AUTHOR: Vvedenskiy, V. S., Prokhorenko, K. K., Zhdanov, P. L., Semenchenko,  
G. V., Vasil'yev, N. Ye., Verkhovtsev, Z. V., Nakonechnyy, N. F.

TITLE: A study of the effect of rare earth metals on the quality of stainless steels and  
steel R18 27

SOURCE: Vsesoyuznoye soveshchaniye po splavam redkikh metallov, 1963. Voprosy\*  
tekhnicheskogo primeneniya redkikh metallov (Problems in the theory and use of rare-  
earth metals); materialy\* soveshchaniya. Myscow, izd-vo Nauka, 1964. 269-271

TOPIC TAGS: rare earth metal, stainless steel, cerium modifier, steel plasticity,  
austenite-carbide steel, austenite-ferrite steel, ferrocerium, steel inclusion, cerium  
oxysulfide, red hardness/steel R18

ABSTRACT: The study was undertaken to determine whether cerium introduced as a  
modifier would increase plasticity during rolling of steels 10Kh16N25M6 (austenite-carbide)  
and 17Kh25N13 (austenite-ferrite), which resist deformation. Tests were conducted under  
industrial conditions; ferrocerium corresponding to a Ce concentration of up to 0.4% was  
added to the metal before discharge or into the ladle. Additions of 0.2% to either steel  
increased plasticity during hot deformation. Increasing the Ce to 0.4% decreased

Card

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L 15200-65

ACCESSION NR: AT4048715

plasticity, owing to the formation of specific defects near the surface in the transcrystalline zone consisting of accumulations of small inclusions, possibly cerium oxides and sulfides. In the 10Kh16N25M6 steel, such addition led to a change in the distribution of carbides in the cast metal, owing probably to a decrease in carbon solubility, an increase in cerium favored carbide segregation throughout the grains rather than at their boundaries, leading to a more even distribution of carbides in the outer ingot layers. Such addition had no significant influence on the amount of the alpha phase and its distribution in the 07Kh25N13 steel. Its introduction led to a new form of non-metallic dot-like inclusions, apparently cerium oxy sulfides, accumulating unevenly in the steel. Increasing the cerium addition led to a sharp decrease (to almost complete disappearance) of manganese and iron sulfides and silicates. Cerium modification of the 10Kh16N25Mn steel, at a C:15-0.20% concentration resulted in increased exterior and interior plasticity and increased the yield strength by 7%. Cerium in the form of rare earth metals was added to 0.5 wt. % of the steel after reduction of the carbon content and red hardness were determined after quenching. Red hardness increased by 25%, due to the increased resistance of the martensite to heating. Polished specimens of the cast steel showed a more even distribution of the ledeburite eutectic; this increased the plasticity during rolling. The modifier did not increase the yield. Orig. art. has: 4 figures.

Card 2/3

L 15200-65  
ACCESSION NR: AT4048715

ASSOCIATION: None

SUBMITTED: 13Jun64

NO REF SOV: 000

ENCL: 00

SUB CODE: MM

OTHER: 000

3/3

Card

PROKHORENKO, Kim Kondrat'yevich; VERKHOVTSEV, Emil' Vladimirovich;  
BAKUMENKO, Sergey Panteleyevich; YASIL'YEV, Nikolay  
Yegorovich; ISHCHUK, Nikolay Yakovlevich; FALEIZOV, Ivan  
Gavrilovich; NOsov, Viktor Aleksandrovich; SEMENENKO, Petr  
Pimenovich; ISUPOV, Vasiliy Fedorovich

[Making and pouring quality steels] Vyplavka i razlivka ka-  
chestvennykh stalei. Moskva, Izd-vo Metallurgiia, 1964.  
200 p.

(MIRA 17:8)

BORODAY, K.; GOLUBEV, V.; DALLAKYAN, L.; VASIL'YEV, O., inzh.

Letters to the editors. Voen. znan. 41 no.8:28 Ag '65. (MIRA 18:7)

1. Chlen prezidiuma rayonnogo komiteta Vsesoyuznogo dobrovol'nogo  
obshchestva sodeystviya armii, aviatsii i flotu SSSR, Yerevan (for  
Dallakyan). 2. Shtab grazhdanskoy oborony Leningrada (for Vasil'yev).

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6

VASILL'YEV, O. (Zhitomir)

A good reinforcement. Za rul. 21 no.6:7 Je '63. (MIRA 16:11)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858910012-6"

L 14990-65 EWT(m)/EWP(w)/EWA(d)/EJP(t)/EWP(b) ASD(f)-2/ASD(m)-3/ESD(c) MJW/  
ACCESSION NR: AT4048120 JD/JG/MLK S/0000/63/000/000/0055/0064

AUTHOR: Yelyutin, V. P., Natanson, A. K., Mozzukhin, Ye. I., Vasil'yev, O. A.

TITLE: Internal friction of grade VA-3 tungsten wire

SOURCE: Vsesoyuznaya konferentsiya po relaksatsionnym yavleniyam v metalakh i splavakh, 3d, Voronezh, 1962. Relaksionnye yavleniya v metalakh i splavakh (Relaxation phenomena in metals and alloys); trudy konferentsii. Moscow, Metallurgizdat, 1963, 55-64

TOPIC TAGS: tungsten wire, tungsten wire annealing, tungsten wire internal friction

ABSTRACT: The authors attempt to find the relationship between the physical and mechanical properties of grade VA-3 tungsten wire and the internal friction in order to improve the procedure for checking wire quality. Special lots of tungsten wire were selected. They differed in the residual elongation after creep tests from zero in the first lot to 1 mm in the second and 6 mm in the third, while the fourth and fifth lots failed. In the same order, the structure changed from coarse grain for the first two, medium grain for the third and fine grain for the fourth and fifth. The wire samples were 1.25, 0.52 and 0.043 mm in diameter and were vacuum heated. The testing temperature was 2700K, load 4.5 kg, duration 4 hrs. Internal friction was measured with wire samples 0.52 mm in diameter and 66 mm long in a

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L 14990-65  
ACCESSION NR: AT4048120

high temperature relaxation device with a tungsten heater, after which the structure was investigated. A tungsten-rhenium thermocouple measured the temperature. The frequency of the sample was about 1 cycle sec<sup>-1</sup>, and the maximum relative deformation was  $5 \cdot 10^{-5}$ . The maximum error was not over 10%. Curves in the paper show the relative internal friction obtained by dividing the internal friction at various temperatures by the internal friction at room temperature after annealing it 2100K for 2 hours. By comparing the structure of samples after reheating, it was found that the high temperature maximum of internal friction (2100K for lots 1 and 2 and 2170K for lot 3) was the recrystallization temperature of the grain size. This method of measuring the internal friction of deformed copper, iron and alloys. It is known that the high temperature maximum of internal friction is higher for fine grain samples in comparison with coarse grain samples. The temperature curves of internal friction obtained after primary heating of lots 1 and 2 did not have a high-temperature maximum prior to the limit testing temperature of 2270K. The recrystallization maximum for lots 1 and 2 was at a higher temperature than that used for measuring internal friction. The maximum grain limit when measuring internal friction of lots 3, 4 and 5 after being subjected to the recrystallization during primary heating was lower than for lots 1 and 2 due to the grain size. Orig. art has 7 figures and 1 table.

Card 2/3

L 14990-65

ACCESSION NR: AT4048120

ASSOCIATION: Moskovskiy Institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: ..Nov63

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 003

Card 3/3

L 1711-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(h) IJP(c) MJW/  
JD/HW

ACCESSION NR: AP5021950

UR/0193/65/000/008/0012/0013  
669.018:621.363.2

AUTHOR: Vagil'yev, N. Ye.; Bushmakin, Yu. A.; Kulalayev, Yu. A.

TITLE: Experience in melting the alloy 79NM in electric arc furnaces and rolling 3.3 ton ingots of this alloy

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 8, 1965, 12-13

TOPIC TAGS: nickel containing alloy, arc furnace, ingot, rolling mill, magnetic property, aluminum containing alloy

ABSTRACT: The Izhevsk Metallurgical Plant, in collaboration with the Novosibirsk Metallurgical Plant, has experimentally produced slabs of the alloy 79NM by rolling/rather than forging. This alloy is obtained by melting Armco iron, grade N-0 or N-1 (nickel?) and grade Mo-1 ferromolybdenum in 20-ton electric arc furnaces (transformer power 5000 kva, melt weight 13-15 tons), and cast into 3.3 ton ingots which are air-cooled and, following the elimination of surface defects, conveyed to a hot-rolling mill (at the Novosibirsk Metallurgical Plant) for rolling into slabs with a cross sectional area of  $130^{+6} \times 370^{+15}$  mm (23 passes, with reduct-

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ACCESSION NR: AP5021950

ion in area of from 55 to 20 mm per pass). At the Novosibirsk Plant the slabs are reduced to a thickness of 3 mm after pickling, cutting to a width of 120-210 mm, and deburring, and then returned to the Izhevsk Plant, where they are processed into 0.1-1.0 mm thick cold-rolled strips. Tests showed that the magnetic properties of the alloy satisfy the requirements of the State Standard 10160-62, and are largely determined by the alloy's nickel content. The first results of this experiment showed that the melting techniques needed some improvement: the ingots from the melts with an excessively low titanium content displayed signs of improper shrinkage. Therefore, to obtain more compact ingots, subsequent meltings were performed on increasing deoxidation with titanium metal to 18-2.0 kg/ton and with aluminum metal to 0.5-0.6 kg/ton. Then the ingot metal contained 0.08-0.1% Ti and approx. 0.05% Al. Following these and certain other modifications, the production of slabs by this method was introduced on a permanent basis at the Izhevsk Plant. As a result the rolling cost at the Novosibirsk Plant could be reduced 42% compared with forged slabs and cold-rolled strip could be obtained in bundles weighing up to 500-700 kg each without being welded along their length. Orig. art. has: 1 figure, 1 table.

ASSOCIATION: none

Card 2/3

L 1711-66

ACCESSION NR: AP5021950

SUMMITTED: 00

ENCL: 00

SUB CODE: MM, 12

NO REF SOV: 000

OTHER: 000

Card 3/3

KANTSEL', Ya.O., inzh.; BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V.,  
inzh.; ZAYTSEV, L.Ye., inzh.; AKIL'YEI, S.A., inzh.;  
BELKIN, V.A., inzh.; POCHKINA, L.A., inzh.; VASIL'YEV,  
O.A., inzh.; KUZ'MINYKH, A.A., red.izd-va; SHIBKOVA, R.Ye.,  
tekhn. red.

[Service life of parts of excavating, construction and road  
machinery; a reference catalog] Sroki sluzhby detalei ekska-  
vatorov, stroitel'nykh i dorozhnykh mashin; katalog-spravoch-  
nik. Izd.2., perer. i dop. Moskva, Goslesbumizdat. Pt.1.[Ex-  
cavating machinery and hoisting equipment; cranes, loaders,  
winches, and elevators] Ekskavatory i pod"emno-transportnoe  
oborudovanie; krany, pogruzchiki, lebedki, elevatory. 1963.  
(MIRA 17:3)  
342 p.

1. Russia (1917- R.S.F.S.R.) Glavnaya upravleniya po snab-  
zheniyu i sbytu produktsii tyazhelogo, transportnogo i  
stroitel'no-dorozhnogo mashinostroyeniya. Tekhnicheskaya kon-  
tora "Stroityazhmashzapchast'." Konstruktorskoye byuro.

VELYUTIN, V.P.; PANOV, A.V.; NATANSON, A.K.; SHULEPOV, V.I.;  
VASIL'YEV, O.A.

Apparatus for measuring internal friction and shear modulus  
at high temperatures. Zav. lab. 28 no.9:1123-1126 '62.  
(MIRA 16:6)

1. Moskovskiy institut stali i splavov.  
(Testing machines)

BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V., inzh.; ZAYTSEV, L.Ye.,  
inzh.; AKIL'YEV, S.A., inzh.; BELKIN, V A., inzh.;  
POCHKINA, L.A., inzh.; VASIL'YEV, O.A., inzh.; Prinimali  
uchastiye: KOPEYKINA, O.P.; SHIRNOVA, A.N.; BELKINA,S.S.;  
SHILINA, Ye.I.; LAGUNOV, Ye.N.; REZNIK, S.Z.; RISMAN,  
B.I.; KUZZMINIKH, A. A. red. iad-ya; SHIBKOVA, R.Ye., "red."  
~~tekhno. red.~~

[Operational life of parts of excavating, construction,  
and road machinery; a reference catalog] Sroki sluzhby de-  
talei ekskavatorov, stroitel'nykh i dorozhnykh mashin.  
katalog spravochnik. Izd.2., perer. i dop. Moskva, Gos'-  
lesbumizdat. Pt.2. [Road, construction machinery, and  
machinery for manufacturing building materials] Dorozhnye,  
stroitel'nye mashiny i mashiny dlia proizvodstva stroitel'-  
nykh materialov. 1963. 306 p. (MIRA 17:4)

1. "Stroitiyazhmarshzapchast", Tekhnicheskaya kontora. Kon-  
struktorskoye byuro.

YELYUTIN, V.P.; NATANSON, A.K.; MOZHUKHIN, K.I.; VASIL'YEV, O.A.

Investigating internal friction in grade BA-3 tungsten wire.  
Fiz. met. i metalloved. 15 no.5:748-753 My '63. (MIRA 16:8)

1. Moskovskiy institut stali i splavov.  
(Tungsten=Testing) (Internal friction)

L 18550-63

EWP(q)/EMT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3001701

S/0126/63/015/005/0748/0753

AUTHORS: Yelyutin, V.P.; Natanson, A.K.; Morzhukhin, K.I.; Vasil'yev, O.A. 61

TITLE: Investigation of internal friction in tungsten VA-3 wire 17

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 5, 1963, 748-753 21 60

TOPIC TAGS: tungsten, internal friction, tungsten VA-3 wire

ABSTRACT: The internal friction in the four samples of the VA-3 wire (used in the production of electric bulb filament) has been studied at temperatures up to 2270K. The results obtained were compared with the internal structure of the wire and its residual elongation values obtained from the creep test. The wire was 1.25 mm in diameter, the load was 2 kg, and the time interval was 4 hours. Before the internal friction was measured the wire was drawn to a diameter of 0.52 mm. Measurements were taken twice--immediately after the drawing and again during the second annealing. Curves expressing relation of temperature to internal friction of the wire with a considerable residual elongation had a peak at 2100-2150K caused by recrystallization. This peak was absent in the case of small elongations because of its shift into the higher temperature region. The internal friction level at the second measurement was correlated to the sample behavior during the first measurement. Samples with the recrystallization process arrested during the

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L 18550-63

ACCESSION NR: AP3001701

first measurement had small friction values; those with a continued recrystallization had large friction values. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 21Jun62

DATE ACQ: 11Jul63

ENCL: 00

SUB CODE: ML

NO REF Sov: 002

OTHER: 003

Card 2/2

L 8557-65 EWT(m)/EWP(k)/EWP(q)/EWP(b) SSD/LSD(2)-3/AFWL/ASD(f)/ESD(c)  
ACCESSION NR: AR4044212 MJW/JD/JG S/0137/64/000/006/1038/1039

SOURCE: Ref. zh. Metallurgiya, Abs. 61227

β

AUTHOR: Yelyutin, V. P.; Natanson, A. K.; Mozzhukhin, Ye. I.; Vastil'yev, O. A.

TITLE: Internal friction of tungsten wire of brand VA-3

CITED SOURCE: Sb. Relaksats. yavleniya v naet. i splavakh. M., Metallurg-  
izdat, 1963, 55-64

TOPIC TAGS: internal friction, tungsten, wire

TRANSLATION: Investigation is conducted on 5 groups of W wire, differing in the results of test for creep at 2700° K and in structure in the recrystallized state. Internal friction was measured on wire samples of length 65 mm and diameter 0.52 mm in a high-temperature relaxometer with a tubular W heater. Measurements were conducted twice: during first heating of the wire directly after drawing, and during

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L 8557-65  
ACCESSION NR: AR4044212

O

second heating of the same sample. The frequency of the oscillations of the sample was  $\sim 1$  cps; the maximum relative deformation was  $5 \cdot 10^{-5}$ . On the temperature curves of internal friction for groups of wires 1 and 2, obtained during first heating of the sample (these groups possess minimum elongation after test for creep and have the most favorable coarse-grained structure with grains stretched along the axis of the wire), there is no high-temperature maximum internal-friction at  $1750-2250^{\circ}\text{K}$ . For wires of group 5 (microcrystalline equiaxial structure, possessing low resistivity to creep) the maximum internal friction is at  $1750^{\circ}\text{K}$ . Internal-friction temperature curves obtained during second heating of the sample are lower than the curves of first heating, but have, in the case of groups 1 and 2, an anomalous character. For the remaining groups in these curves sharply differ in the location of the high-temperature branch in the interval  $1750-1950^{\circ}\text{K}$ . The sharpest increase of internal friction with a smooth increase of temperature is observed in group 5. A smoother increase of internal friction is observed in groups 1 and 2.

Card 2/3

L 8557-65  
ACCESSION NR: AR4044212

gation of the structure of recrystallized wire. The temperature curves of internal friction in the case of both heatings for all investigated groups have maximum at 1500° K, while the height of this maximum is greatest for groups 1 and 2. The high-temperature maximum internal friction, at ~4000° K for groups 3 and 4 and 1750° K for group 5, is recrystallizational. The given maximum is caused by the growth of the grain during collective recrystallization during the first heating of the sample. In the case of groups 1 and 2 the recrystallization maximum internal friction shifts toward the region of higher temperatures. Bibliography: 6 references.

SUB CODE: MM, AS

ENCL: 00

Card 3/3

O. B. VASIL'YEV and GRIGOR'YEV, P. V.

"Photometric Observations of the Solar Corona With Automatic Aerial Cameras During  
the Total Solar Eclipse of June 30, 1954"

(Total Eclipse of the Sun, February 25, 1952 and June 30, 1954, Transactions of the  
Expedition to Observe Solar Eclipses) Moscow, Izd-vo AN SSSR, 1958. 357 p.

KRISHTOPOVICH, A.N. [deceased]; L'VOV, V.Ye.; MARKOV, A.V., professor;  
KOHOLEV, A.V.; GOLOSHNITSKIY, L.P.; OGORODNIKOV, K.F., professor;  
BYGEMSON, M.S., professor; LOZIK-LOZINSKIY, L.K., professor;  
VOROB'YEV, A.G., professor; KOZLOVA, K.I.; KAZRINOV, B.A.; SUSLOV,  
A.K.; GML'FREYKH, G.B.; VASIL'YEV, O.B.; LICHKOV, B.L., professor;  
SYROMYATNIKOV; KUTYAEVA, A.P.; KATTERFEL'D, G.E.; SYTINSKAYA, N.N.;  
SHARONOV, V.V.; SUVOROV, N.I.; KUCHEROV, N.I.; TIKHOV, G.A.;  
GORSHKOV, P.M.

Addresses by A.N.Krishtofovich and others. Trudy Sekt.astrobot.  
Kazakh.SSR 4:68-157 '55. (MLRA 9:12)  
(Mars (Planet))

S/035/60/000/04/12/017  
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 4,  
p. 44, # 3178

AUTHORS: Grigor'yev, P. V., Vasil'yev, O. B.

TITLE: Photometric Observations of the Solar Corona With Automatic Aerial  
Cameras at the Total Solar Eclipse of 1954, June 30

PERIODICAL: V sb.: Polnyye solnechn. zatmeniya 25 fevr. 1952 i 30 iyunya 1954,  
Moscow, AN SSSR, 1958, pp. 207-222

TEXT: The results of processing the photographs of the solar corona taken  
by an expedition of LGU in Yeysk at the total solar eclipse are reported. Auto-  
matic aerial cameras made it possible to take 100 photographs of the solar corona  
during the time of the total phase (124 sec). The cameras had Industar-17 lenses  
(F=50 cm, D=10 cm); exposures lasted 1/100 sec and intervals between them 3 sec.  
Photographing was made on aerial photofilms of two types in combination with  
various glass light filters: panchromatic film with red and orange filters,  
isochromatic film with yellow, light-yellow filters and without a filter. This  
arrangement made it possible to take photographs in five regions of spectrum ✓

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S/035/60/000/04/12/017  
A001/A001

Photometric Observations of the Solar Corona with Automatic Aerial Cameras at the Total Solar Eclipse of 1954, June 30

with different effective wavelengths. Calibration was carried out by means of a tubular photometer whose scale was printed-in along the whole film on its both sides. Negatives were measured on a Hartmann microphotometer by the usual method, in intervals of 0.01-0.02 mm along diameters of the solar disk and of  $10^3$  in position angle. Relative brightnesses of the solar corona at various wavelengths were obtained. The variation of brightness in the solar corona with a distance from the solar disk center is well represented by the formula:  $B = N/R^n$ . The values of empirically chosen coefficients N and n are tabulated. The course of corona brightness for various  $\lambda_{eff}$  is presented, as well as isophotes of the corona; degrees of isophote flattening are calculated. The corona of 1954 is characteristic for the epoch of solar activity minimum. Standardization on the basis of Moon's photographs taken at full moon was unsatisfactory. It is pointed out that standardization is possible on the basis of photographs of a white plate arranged normally to solar rays. Photographs of the solar corona at various wavelengths, tables and graphs are presented.

V. F. Yesipov

Card 2/2

**3,5000**

83340  
S/169/60/000/007/011/016  
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 7, p. 203, # 8462

AUTHOR: Vasil'yev, O.B.

TITLE: Experience of Photometric Observations of Noctilucent Clouds by the  
All-Union Astronomic-Geodetical Society During the International  
Geophysical Year (1957-1958) J2

PERIODICAL: Tr. Soveshchaniya po serebristym oblakam 1958, (P.I.). Tartu, 1959,  
pp. 77-84 (English summary)

TEXT: The task of photometrical observations of noctilucent clouds consists  
in obtaining the albedo of various points of the field observed. These data allow  
the estimation of the density and quantity of the substance and also the altitude  
distributions of density and thickness of clouds over the field of noctilucent  
clouds, when some assumptions are introduced as to the dimensions and the albedo  
of the particles forming the noctilucent clouds. The indicatrix of glow of the  
particles forming noctilucent clouds may be derived from the data on the albedo  
of one and the same point of noctilucent clouds, when these are obtained from  
different points of the earth's surface located along the same great circle. The

Card 1/3 X

83340

S/169/60/000/007/011/016  
A005/A001

Experience of Photometric Observations of Noctilucent Clouds by the All-Union  
Astronomic-Geodetical Society During the International Geophysical Year (1957-1958)

task of polarimetric observations consists in the determination of the polarization degree and the direction of the plane of preferential glow oscillations. These data permit the judgment on the physical nature of the particles forming the noctilucent clouds. The photometric and polarimetric investigations of noctilucent clouds were carried out during the IGY period (seasons 1957 and 1958). The photographic survey of the noctilucent clouds was performed with three photo-cameras fixed on a special stand, which permitted the following surveys: a) the panoramic photography of the noctilucent cloud field; b) the polarimetric survey; c) the survey of the vertical of the line of the corresponding photometric observations of noctilucent clouds. In surveying the noctilucent cloud field panorama, the optical axes of the camerae were arranged fan-like embracing an angle of about  $100^{\circ}$  in the azimuth, for performing the absolute photometry. In polarimetric surveying, the optic axes of the camerae were directed parallel, and polarization light-filters were put on the camera objectives, which were turned through  $60^{\circ}$  relative to each other. In surveying the vertical of the line of corresponding photometric observations, the camerae were directed vertically, whereby their optic axes were arranged that they embraced the angle from the horizon to the zenith. This survey was carried out every day in the twilight hours at intervals of 10 min.

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independently of the presence of clouds. The photographs of the noctilucent clouds were taken always with the same constant exposure of 30 sec, but the diaphragms were varied, depending on the brightness of the clouds and the twilight sky. All the photographs obtained were gauged by means of a special scale, which was photographed by the cameras during the observations. Photographic observations of the Sun were carried out for determining the atmospheric transparency and for standardizing the photographs obtained during the entire observation period. The test of the method in practice of observations in 1957 and 1958 showed its reliability, the possibility of attaining the necessary accuracy of the observations, and the convenience in carrying out the observations proper. The processing of observation results is not concluded yet, but the preliminary data obtained show that the albedo of the noctilucent clouds amounts to a very small value of the order of  $10^{-5}$ - $10^{-7}$ , and the brightness of the clouds fluctuates within wide limits. The noctilucent clouds show negative polarization reaching 30% and depending apparently on the brightness.

L.V. Yerasova

Translator's note: This is the full translation of the original Russian abstract.

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VASIL'YEV, O.B. (Leningrad)

Taking atmospheric extinctions into account in observing  
noctilucent clouds. Biul.VAGO no.25:24-25 '59.  
(MIRA 13:3)

1. Leningradskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva.  
(Clouds)

VASIL' YEV, O.B.

Simple reduction of coordinates in photographic photometry of  
noctilucent clouds. Biul.VAGO no.27:40-47 '60. (MIRA 13:6)

1. Leningradskoye otdeleniye Vsesoyuznogo otdeleniya astronomo-  
geodezicheskogo obshchestva.  
(Clouds)  
(Astronomy, Spherical and practical)

L 14486-66 EWT(1) GS/GW

ACC NR: AT6003721

SOURCE CODE: UR/0000/65/000/000/0163/0171

50

46

2+1

AUTHORS: Vasil'yev, O. B.; Sumin, V. S.

ORG: Astronomical Committee, AN SSSR (Astronomicheskiy sovet AN SSSR)

TITLE: Automatic and semiautomatic devices for measuring tremor on star trails

SOURCE: AN SSSR. Astronomicheskiy sovet. Opticheskaya nestabil'nost' zemnoy atmosfery (Optical instability of the earth's atmosphere). Moscow, Izd-vo Nauka, 1965, 163-171

TOPIC TAGS: atmospheric refraction, atmospheric disturbance, stellar astronomy, photographic image/ MIR-12 microscope, UPT-4 amplifier, MF-2 microphotometer

ABSTRACT: Star trails on photographs are undulatory because of tremor arising from atmospheric instability. Evaluation of tremor is made by determining deviation of points on a trail from the average position. V. B. Sukhov first advanced the idea of making this determination semiautomatic. He did not succeed in his efforts, but his ideas are the basis of the works discussed here. The common technique of measuring tremor involves the use of an MIR-12 microscope with the print so placed that the cross hairs of the ocular are shifted along the trail. The observer keeps

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the cross hairs on the middle of the trail, following it through all its bendings. A linear potentiometer<sup>1/2</sup> is connected to the screw of the ocular, and the voltage produced in the potentiometer is proportional to rotation of the screw. In a device designed by V. S. Sumin in 1960, coupled potentiometers are used in conjunction with two integrators. Because of nonlinearity of the potentiometers, dispersion has to be determined from tables computed for measured current values. This is inconvenient, and furthermore, error appears when dispersion is low and current values high. O. B. Vasil'yev designed apparatus at about the same time, using a technique that eliminates the squaring operation required in the preceding system. This technique is based on random deviation of stars from mean position, operating in accordance with Gauss's theorem. The mean amplitude of tremor, measured on the instrument, is converted to mean-square amplification by a simple, constant coefficient. Sumin devised another set of equipment in 1961--the Sigma-1--using UPT-4 operational amplifiers.<sup>3/4</sup> These are cascade amplifiers, containing three stages, each changing the sign of input voltage. Because of high amplification, these are used only with considerable feedback. A simple circuit for the square-law generator is employed, and this gives good results. In 1962 Vasil'yev proposed an instrument for automatic operation in which an MF-2 microphotometer<sup>5/6</sup> was used as the data unit. The light from a lamp passes through a condenser to a slit. An objective focuses the image of the slit upon the film. A second objective projects

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a magnified image of the film segment upon photoconductive cells. A movable mirror is placed between the second objective and the photoconductive cells, set on the axis of a microammeter. The image of the slit is made to intersect the trail at right angles. Shift of the trail is recorded through the photocells as potential. This potential may be converted by a system similar to Sigma-1, called Sigma-2. These latter systems are being modified continuously. Orig. art. has: 11 figures, (Fig. 11 is not included with the reproduced copy) and 14 formulas.

SUB CODE: 03/ SUBM DATE: 15May65/ ORIG REF: 003

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Card 3/3

L 45312-66 EWT(1)/FCC GW  
ACC NR: AR6016282

SOURCE COIE: UR/0269/66/000/001/0027/0027

37  
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AUTHORS: Vasil'yav, O. B.; Frolov, V. N.

TITLE: The calculation of night spectral transparency of the atmosphere by the expedition of the GAO in Zelenchuk in 1963 ✓

SOURCE: Ref. zh. Astronomiya, Abs. 1.51.233

REF SOURCE: Izv. Gl. astron. observ. v Pulkove, v. 24, no. 2, 1965, 207-213

TOPIC TAGS: spectrographic analysis, atmospheric transparency

ABSTRACT: Results are presented for preliminary calculations of spectral transparency of the earth's atmosphere. The work is based on the photographic method, and was carried out by the astronomical-climatic expedition of the Main Astronomical Observatory of the Academy of Sciences SSSR in Zelenchuk. Observations were made in the summer of 1963 with the aid of an AZT-7 meniscus Kassegrenovskiy reflector in combination with ASP-9 slit spectrograph. The diameter and focus distance of the telescope were 200 and 2000 mm respectively. Reverse dispersion of the spectrograph was 215 Å/mm along the line H $\beta$ . It turned out that the mean coefficient of transparency diminished evenly from 0.84 near the 575 m $\mu$  wavelength to 0.65 near the 400 m $\mu$  wavelength. Results of the observations are compared with other observations and with meteorological data on the night of the observations. Bibliography of 11 titles. D. Kuli-Zade [Translation of abstract]

UDC: 525.7

SUB CODE: 03, 08

Card 1/1 Mjs 03, 08

VASIL'YEV, O.B.

Periodicity of appearances of noctilucent clouds. Astron.tsir.  
no.224:32-34 Ag '61. (MIRA 16:1)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.  
(Clouds)

ASTAPOVICH, I.S.; BAKULIN, P.I.; BAKHAEV, A.M.; BRONSHTEIN, V.A.; BUGOSLAVSKAYA,  
N.Ya. [deceased]; VASIL'YEV, O.B.; GRISHIN, N.I.; DAGAYEV, M.M.; . . .  
DUBOVSKIY, K.K. [deceased]; ZAKHALOV, G.P.; ZOTKIN, I.T.; KRUTER, Ye.N.;  
KRINOV, Ye.L.; KULIKOVSKIY, P.G.; KUNITSKIY, R.V.; KUROCHKIN, N.Ye.;  
ORLOV, S.V. [deceased]; POPOV, P.I.; PUSHKOV, M.V.;  
RYBAKOV, A.I.; KYABOV, Yu.A.; SYTINSKAYA, N.N.; TSESEVICH, V.P.;  
SUCHIGOLEV, B.M.; VORONTSOV-VEL'YAMINOV, B.A., red.; POLOVINAEVA, G.A.,  
red.; KRYUCHKOVA, V.N., tekhn. red.

[Astronomical calendar; permanent part] Astronomicheskii kalendar';  
postoiannaya chast'. Izd. 5., polnost'iu perer. Otv. red. P.I. Bakulin.  
Red. kol. V.A. Bronshten i dr. Moskva, Gos. izd-vo fiziko-matem. lit-ry,  
1962. 771 p. (MIRA 15:4)

(Astronomy--Yearbooks)

3, 5120

S/169/62/000/003/088/098  
D228/D301

AUTHOR: Vasil'yev, O. B.

TITLE: Processing photometric noctilucent cloud observations in the Leningradskoye otdeleniye *BATO* (Leningrad Division, VAGO)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 18-19, abstract 3G135 (Tr. VI Soveshchaniya po serebristym oblakam, 1959, Riga, AN LatvSSR, 1961, 35-48) *H*

TEXT: Photographic, photometric, and polarimetric observations of noctilucent clouds are described; these were carried out in July-August 1957 at the town of Bologoye, Kalinin region. Small-size *FED-2* cameras were used to photograph the noctilucent clouds. Both photometric and polarimetric surveys of the noctilucent clouds, and also one of the vertical of the line of the corresponding photometric observations of the noctilucent clouds, were made by means of the same cameras. In the polarimetric survey, to eliminate the possibility of obtaining false polarization as a re-

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Processing photometric noctilucent ...

S/169/62/000/003/088/098  
D228/D301

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sult of different observational errors, the same source of unpolarized light was photographed on all three cameras simultaneously with the cloud survey. The polarimetric survey was conducted with polaroids. The polaroids' polarization planes were fixed at angles of 0, 60, and 120° to the vertical. The resulting photographs were calibrated by means of a tubular photometer. A special fitting was employed to standardize the noctilucent-cloud prints. The atmospheric transparency was observed on a universal wedge photometer. Out of the 75 noctilucent-cloud prints, obtained in the observations, 11 of the best copies were selected. The prints were processed on an M4-6(MF-6) microphotometer. Both the optical densities and the rectangular coordinates of the corresponding points of the noctilucent-cloud field on the photograph were measured in the processing. The tying to celestial horizontal coordinates was accomplished by measuring the coordinates of ground orientation-points on the print (the horizontal coordinates of these orienting points were determined by theodolite surveying). The measured optical densities were converted to intensities, and a correction

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S/169/62/000/003/088/096

Processing photometric noctilucent ... D228/D501

was introduced for the field's photometric error. Then, the brightness of the points was calculated in absolute solar units from the formula:

$$B = \bar{\tau} \frac{b}{b_e} \left( \frac{\pi_1}{\pi_2} \right)^2 d$$

where  $\bar{\tau}$  is the passage coefficient of the fitting's screen;  $\sigma$  is the brightness of the field's points in a provisional system of calibrated scale units;  $b$  is the brightness of the fitting's translucent screen, situated normal to the sun's rays within the atmosphere, in the same system of units;  $b_e$  is the sun's parallax at the moment when noctilucent clouds and the sun are respectively observed. [Abstractor's note: There may be an error in the Russian original here, as "b" is repeated twice.] and  $d$  is the factor that takes into account the exposure difference when observing noctilucent clouds and the sun. Curves of the distribution of the apparent brightness

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Processing photometric noctilucent ...      S/169/62/000/003/038/038  
D228/D301.

along the noctilucent-cloud field at varying heights above the horizon were obtained as a result of the performed work. The change in the contrast of noctilucent clouds with their surrounding background of sky at different angles of the sun's sinking below the horizon was studied. If half the sum of the sky points lying above and below the observed part of the noctilucent cloud is taken for the brightness of the surrounding background  $B_b$ , where  $B_b = \frac{B_1 + B_2}{2}$  then the contrast of the detail with a brightness  $B$  against the surrounding background will be expressed by the formula:  $K = \frac{B - B_b}{B}$ . When processing the polarimetric observations of noctilucent clouds, it was found that the clouds show a strongly negative polarization, which reaches 30% at separate points and depends on the angle of scattering. This dependence does not appear to be the same for different moments of the observations. / Abstracter's note: Complete translation. /

Card 4/4

GORELIK, B.M., BUKHINA, M.F., RATNER, A.V., Prinimalni uchastiye:,  
VASIL'YEV, O.B., KOROLEVA, V.M.

Investigating the compression of round section rubber rings  
and cylindrical specimens. Kauch.i rez. 19 no.2:23-28 P '60.  
(MIRA 13:6)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.  
(Rubber--Testing)

GORELIK, B.M.; BUKHINA, M.F.; RATNER, A.V.; Trinimali uchastiye: VASIL'YEV,  
Q.B.; KOROLEVA, V.M.

Change of contact area during the deformation of rubber cylinders and  
rings. Kauch. i rez. 20 no.1:12-17 Ja '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.  
(Rubber goods--Testing)  
(Deformations(Mechanics))

1. VASIL'YEV, O. F.
2. USSR (600)
4. Gromeka, Ippolit Stepanovich, 1851-1889
7. I. S. Gromeka and his works in the field of hydromechanics. Izv. AN SSSR. Otd. Tekh. nauk. no. 7, 1952
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

VASIL'YEV, O. F.

Among the papers presented by the First All-Union Conference on Aerohydrodynamics (8-13 Dec 1952) convened by the Institute of Mechanics, Academy of Sciences USSR, was:

"Some Questions on the Theory of Spiral and Circulatory Streams" by Vasil'yev, O. F.

SO: Izvestiya AN USSR, Otdeleniye Tekhnicheskikh Nauk, No. 6, Moscow,  
June 1953, (W-30662, 12 July 1954)

VASIL'YEV, O. F.

"Mechanics of Spiral Currents and Currents With Transverse Circulation." Sub 3  
Dec 51, Moscow Inst of Engineers of Water Economy by V. R. Vil'yams

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

124-1957-1-426

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 53 (USSR)

AUTHOR: Vasil'yev, O. F.

TITLE: Some Problems of the Mechanics of Helical and Circulatory Flows (Nekotoryye voprosy mekhaniki vintovykh i tsirkulyatsionnykh potokov)

PERIODICAL: Sb. tr. Mosk. inzh.-stroit. in-ta, 1955, Nr 9, pp 65-99

ABSTRACT: An examination is presented of two-parameter nonhelicoidal and helicoidal stationary flows (where helicoidal flows are understood to exhibit collinearity of the vortex and velocity vectors) in a non-viscous fluid. The examination is based on the classical investigation by I. S. Gromeka (Sobraniye sochineniy. Izd-vo AN SSSR, 1952, pp 76-148) and represents a further development and generalization of some results of that investigation. The Author remarks on the significance of the theoretical reasonings under examination for the practical calculation of deliberately induced transverse currents in water flows (p 65), indicating, in particular, the qualitative satisfactoriness of the comparison between theoretical and experimental data for the numerical computation performed (p 96). Having written the equations of

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124-1957-1-426

**Some Problems of the Mechanics of Helical and Circulatory Flows**

nonhelicoidal and helicoidal two-parameter motions in terms of Cartesian, cylindrical, and spherical coordinates, the A. draws several special conclusions for example, on the erroneousness of Potapov's opinion (Potapov, M. V., Sochineniya, Vol II, Sel'khozgiz, 1951) on the independence of the transverse circulation from the longitudinal velocity distribution; also on the elliptical distribution diagram of the longitudinal velocities in a circular pipe

$$v_z = \sqrt{v_{\max}^2 - 2a^2 \tau^2}$$

if the peripheral velocity is  $a\tau$ , while the energy is uniformly distributed). Since the equations are non-linear and elliptical, the Author linearizes the equations and expands the arbitrary functions of  $\psi$ , just like a stream function, in a series and, having assumed them constant in the first approximation, assumes them to be linear in the second approximation. In the case of prismatic channels, the first approximation for the lengthwise velocity yields

(see card 3 for equation)

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## Some Problems of the Mechanics of Helical and Circulatory Flows

$$q_3 = W = \sqrt{w_o^2 + 2 C \psi}$$

where  $w_o$  is the boundary-layer velocity, to which corresponds a  $\psi$  value of zero. The second approximation yields

$$w = \sqrt{w_o^2 + 2 \alpha k w_o \psi + k^2 \psi^2}$$

where  $\alpha > 1$  and  $k$  is a positive constant. It is noted that the problem of the linearized first approximation of the flow in a prismatic channel, for the boundary condition  $\psi = 0$ , is reduced to the problem of the torsion of a prismatic bar or the flexure of a uniformly loaded membrane.

V. M. Makkaveyev

## 1. Fluids--Flow--Analysis

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